logical process causes an increased elimination from the heightened protein metabolism. This is proportional to the height of the fever. After the fever has lasted for some time, or following a relapse, the amount diminishes. (2) In afebrile diseases of the central nervous system, in which neither the muscular tone is increased nor muscular exercise indulged in, the patients being confined quietly in bed (hemiplegia, myelitis, tabes, syringomyelia), the excretion is normal or subnormal. In those diseases characterized by excessive muscular activity (epilepsy), on the other hand, the creatinin is very greatly increased. In nervous diseases following the administration of salvarsan, an increased excretion appears on the second to the fourth day after the injection, lasting a few days. (3) The excretion is greatly diminished in hepatic disease where the function of the liver is disturbed; also in (4) diabetes mellitus and in Basedow's disease. (5) In marasmus the values are subnormal; in diabetes insipidus, practically normal. (6) A meat diet after a long period of milk diet causes a temporary increase. (*b*) Creatin: (1) In fever creatin is found constantly in considerable quantity. After the fever has lasted for some time, creatin may disappear. (2) In afebrile nervous diseases with the patients at rest, creatin is found in the urine only in traces. After muscular exercise (epileptic attack) the amount is large. Following salvarsan, an increased creatin excretion may precede the increase in the creatinin. (3) Creatin is excreted in considerable amounts in hepatic disease and in Basedow's disease.

Artificial Immunity Against Trypanosomes.—E. TEICHMANN and H. BRAUN (*Berlin. klin. Woch.*, 1911, xlviii, 1562) have been able to prepare a trypanosome vaccine from the dead organisms which may be preserved and the dosage of which may be accurately measured. By means of it they can produce an active immunity in mice. The animals exhibit no morbid symptoms from the vaccination and are protected from a fatal dose of living trypanosomes. Using the same vaccine, the authors have prepared an immune serum of high potency from rabbits. A single small injection of the immune serum protects mice against a fatal dose of the organisms, whereas controls which received normal rabbit serum always died.

Chemotherapy of Pneumococcus Infections.—J. MORGENROTH and R. LEVY (*Berlin. klin. Woch.*, 1911, xlviii, 1560) point to certain biological characteristics peculiar to the pneumococcus, on the one hand, and to trypanosomes and spirilla on the other. Thus, all are dissolved by bile salts, though the other pathogenic cocci are unaffected. In studying the effect of various derivatives of quinine on trypanosomes, Morgenroth and Halberstaedter found a body which exhibited a markedly destructive action against these parasites. Morgenroth and Levy have undertaken the study of the action of these same compounds in experimental pneumococcus infections in white mice. Several of the derivatives proved to be practically inert, but in "Ethylhydrocupreinsulfat" a substance has been discovered which has a definitely curative action in white mice in a certain proportion of the cases. The animals which recover are possessed of an active immunity to the pneumococcus. Other compounds are being prepared and will be tried in pneumococcus and other bacterial infections, in an attempt to secure still better results. In the findings which they report at the present time, Morgenroth and Levy see the possibility of a successful chemotherapy of bacterial diseases.

A Modification of the Spectroscopic Test for Occult Blood.—K. Csépai (*Deutsch. Archiv f. klin. Med.*, 1911, ciii, 459) has modified the method of spectroscopic examination for occult blood so that the test may be rapidly and simply performed; its delicacy almost equals that of the color tests (guaiac, benzidin), and the results are not equivocal. Method: To 5 grams feces add 5 c.c. of glacial acetic acid, 5 c.c. of ether, and 5 c.c. of alcohol. Rub the mixture well in a mortar for two or three minutes, then filter through a dry, folded filter. To the extract add 1 to 2 c.c. of pyridin and then 1 to 3 drops of ammonium sulphide. In the presence of blood the spectrum of hemochromogen is now demonstrable. The following precautions are necessary in applying the test: (1) The patient must abstain from meat and green vegetables for three days preceding the test, since hemoglobin and chlorophyl will give it. (2) The ammonium sulphide must be kept in a dark bottle with glass stopper. Preserved in this way, it retains its reducing action for about ten days. (3) More than three drops of ammonium sulphide should not be used, since an excess diminishes the intensity of the spectrum. (4) The examination must be made immediately after adding the ammonium sulphide, since the spectrum soon fades. The test will detect blood in a dilution of 0.1 per cent. in the feces. This is not so delicate as the guaiac test, but much more reliable, since only blood will give a positive test if condition (1) is fulfilled.

A Contribution to the Chemistry of Blood Regeneration.—E. Masing (*Archiv f. exp. Path. u. Pharmakol.*, 1911, lxvi, 71) has attempted to discover chemical changes in the blood during active regeneration which might be correlated with the morphological and biological alterations known to exist. His preliminary experiments showed that the serum in experimental toxic anemias was richer in phosphorus than normal serum. Since phosphorus is an important constituent of cell nuclei, and, further, since nuclei are constantly being formed in large number during regeneration, Masing directed his attention to the various phosphorus compounds in the present study. Rabbits and geese were used as experimental animals. Comparative determinations of the phosphorus in normal and anemic animals were made. Total phosphorus, lipoid phosphorus, and nuclein phosphorus were quantitated in the serum and the red cells of the rabbit and in the red cells of the goose. In the serum of the anemic rabbits the phosphorus which may be extracted with alcohol-ether is increased above the normal. The erythrocytes of the rabbit are also richer in ether-soluble phosphorus. Masing finds also that the red cells of anemic rabbits contain considerable nucleinic acid, whereas normally it is present only in very small amounts. Similarly the nucleinic acid content of anemic goose blood is markedly increased. Masing concludes that the increased quantity of nucleinic acid and of phosphatids is to be interpreted as evidence of large numbers of young blood cells in the peripheral blood.